



# Beograde 70 PBAT lignin MB001

## Material Technical Data Sheet



Date of issue: 24/09/2024 Version: 3.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form	: Pellets
Name	: Beograde 70 PBAT lignin MB001
Product code	: 7030070001
Application	: Masterbatch for film blowing, extrusion, injection moulding, ...
Composition	: 70% Lignova lignin + 30% PBAT

#### 1.2. Details of the supplier of the material specification sheet

##### Manufacturer

Beologic  
Jolainstraat 44  
8554 Sint-Denijs  
[info@beologic.com](mailto:info@beologic.com)

### SECTION 2: Physical, mechanical and thermal properties

#### 2.1. Information on basic physical, mechanical and thermal properties

Properties <sup>(1)</sup>	Method	Typical Value	Unit
Physical			
Content		70% Lignova lignin + 30% PBAT	
Physical state		Solid	
Relative density	ISO 1183-1	1,15-1,25	g/cm <sup>3</sup>
MFI (190°C, 2,16 kg)	ISO 1133-1	0,75-1	g/10min
Coloured in mass		NO	
Colour material		Natural brown	
UV package		NO	
Carbon footprint <sup>(2)</sup>	PAS 2050	-0,1878*	kg CO <sub>2</sub> Eq/ kg
Shelf life <sup>(3)</sup>		6	Months

(1) Typical properties; not to be construed as specifications.

(2) Carbon footprint calculated by Neurologic

(3) Only if storage conditions (section 5) were followed

\* Due to continuous variation of feedstock this figure reflects value of September 2024. Update latest carbon footprint available on request.  
Incl. Biogenic content

#### 2.2. Product Carbon footprint

The product carbon footprint helps to define the amount of greenhouse gas emissions generated by a product along its life cycle, it quantifies the ghg-emissions related to the production of our products.

Neurologic calculates the carbon footprint of all sales products and this from cradle to gate.

The calculation of the carbon footprint is in accordance with the internationally recognized Greenhouse Gas Protocol Product Standard which is based on the standard ISO-14067 norm and PAS2050.

Assumptions taken into account for the compounding step:

- 100% green electricity → no emissions
- Processing of production and packaging waste → goes to high caloric burning, so emissions allocated to generated energy
- Water consumption and waste water processing → not accounted for as emissions are below 0.1% threshold

#### 2.3. Other information

Advantages of this product:

- Natural look
- No sulfur smell
- Food contact eligible, to be verified by migration testing on the final product
- Carbon-neutral
- Home & soil compostable (Depending on specific environment (climate, soil quality, population of micro-organisms)).
- Waste bags made with this MB, report stronger performance during storage, with less tearing and leakage
- Easier shredding of waste bags by recycling and bio-gas companies
- Good processability on blown film lines
- Good thermostability up to 230 °C



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### SECTION 3: Biodegradability and compostability

Composting of organic waste helps to divert organic waste from landfill or incineration. Composting is a biological process in which organic wastes are degraded by microorganisms into carbon dioxide, water and humus, a soil nutrient.

Beograde 70 PBAT lignin MB001 fulfils the requirements of the European standard DIN EN 13432, the US standard ASTM D 6400 and the Japanese GreenPla standard for compostable and biodegradable polymers, because it can be degraded by micro-organisms. As the compostability of the end product is also dependent on the geometry of product, it is the responsibility of the manufacturer of the end product to ensure compliance with the regulations.

### SECTION 4: Drying and storage conditions

**Beograde 70 PBAT lignin MB001 is a compound of biodegradable polymers (such as PBAT). Residual moisture content can lead to hydrolysis degradation. We recommend drying Beograde 70 PBAT lignin MB001 at maximum 70°C for a period of 2 hours to maximum 6 hours.** Don't overheat or dry it longer than recommended. Residual moisture content (> 2.0%) can result in lower melt stability, surface mark or bubble formation during processing.

We recommend to store the material in dry conditions below 50°C and protected from UV-light. Opened (big)bags should be used immediately or adequately sealed back up after use to avoid moisture uptake and have negative effects on the physical properties of the product. It is recommended to use Beograde granules within a time period of maximum 6 months.

Finished product made from Beograde should be stored dry and cold. Storage time and lifetime of finished products depends on processing parameters and on storage conditions (moisture, UV radiation ...).